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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,981	01/05/2001	James E. Flowers	CSAY-0017	4753

27964 7590 06/16/2004

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EXAMINER

WOO, STELLA L

ART UNIT	PAPER NUMBER
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2643

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DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,981

Applicant(s)

FLOWERS ET AL.

Examiner

Stella L. Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-8, 10-15, 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (US 6,351,194 B2, hereinafter "Takahashi").

Regarding claims 1, 3, 8, 10, Takahashi discloses a module (electronic component; Figure 1), comprising:

an input surface acoustic wave circuit (first surface acoustic wave filter 13a), couplable to an input of said function circuit (SAW filter 13a is coupled to impedance matching circuit M via terminal C1; Figs. 2-4); and

an output surface acoustic wave circuit (second surface acoustic wave filter 13b), couplable to an output of said function circuit (SAW filter 13b is coupled to impedance matching circuit M via terminal C2; Figs. 2-4).

Regarding claims 4, 18, SAW filters 13a and 13b are mounted on a multi-layered printed circuit board 11 (col. 5, lines 60-63).

Regarding claims 5, 12, 15, 17, 19, a metal cover 15 provides a hermetic enclosure (col. 8, lines 47-56).

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Regarding claims 6, 11, 13, 20, a piezoelectric substrate is used (col. 6, lines 4-11).

Regarding claims 7, 14, 21, an electromagnetic shield is provided between the two surface acoustic wave filters in order to prevent crosstalk (col. 11, lines 20-23; col. 12, lines 48-55).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 9, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Hirano et al. (US 6,232,846 B1, hereinafter "Hirano").

Takahashi differs from claims 2, 9 and 16 in that it does not specify the function circuit as being one of a power amplifier, a low-noise amplifier, an intermediate frequency amplifier, and a voltage-controlled oscillator. However, Hirano teaches the desirability of incorporating an oscillator (oscillation circuit 21) with a surface acoustic wave resonator (26) in order to provide a smaller, lower cost oscillator module package (col. 2, lines 42-56) such that it would have been obvious to an artisan of ordinary skill to incorporate such an oscillator function circuit, as taught by Hirano, within the electric component of Takahashi in order to provide an oscillating function while conserving costs.

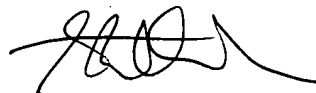
Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ikata et al., Takado, Endoh et al., Yamanouchi et al., Edmonson et al. show other surface acoustic wave circuits.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (703) 305-4395. The examiner can normally be reached on Monday-Tuesday, Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stella L. Woo
Primary Examiner
Art Unit 2643